CD RECEIVER

KDC-319/4019
KDC-5020

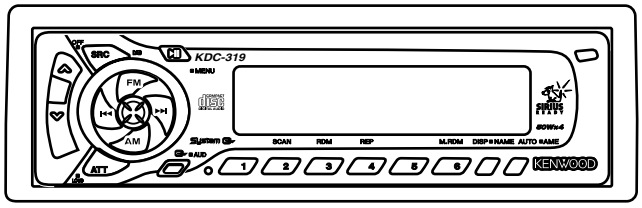
SERVICE MANUAL

KENWOOD

B51-7908-00 (K) 1743

Refer to the service manual "X92-4430-0x" (B51-7889-00) for MECHANISM information.

KDC-319 (K)



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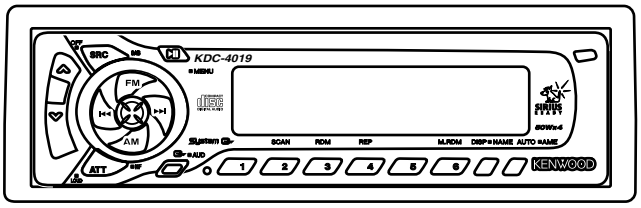

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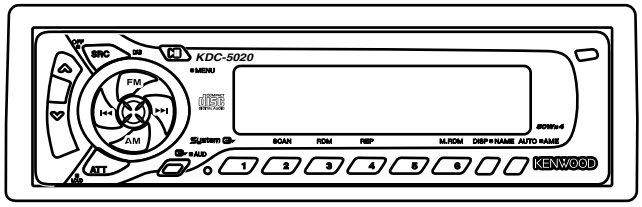
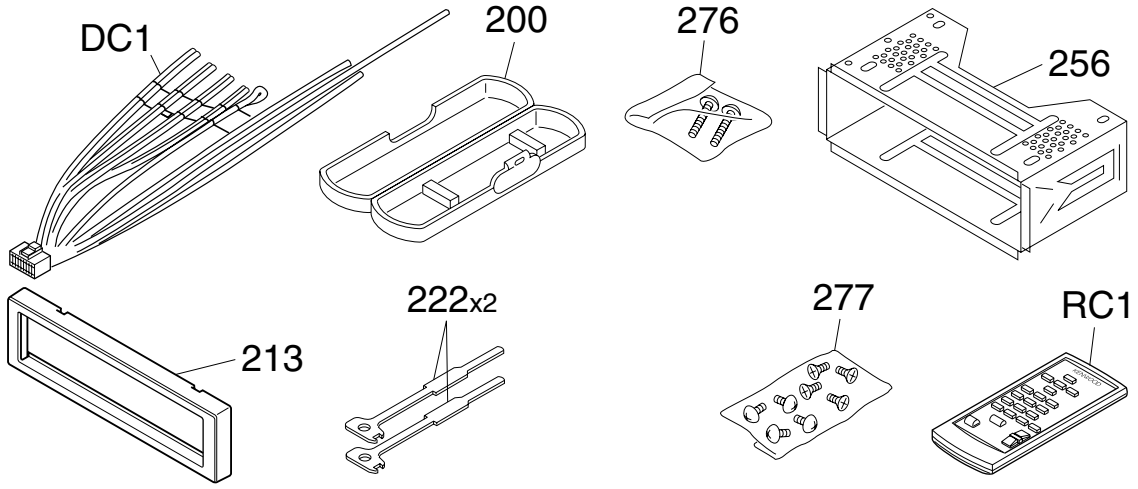
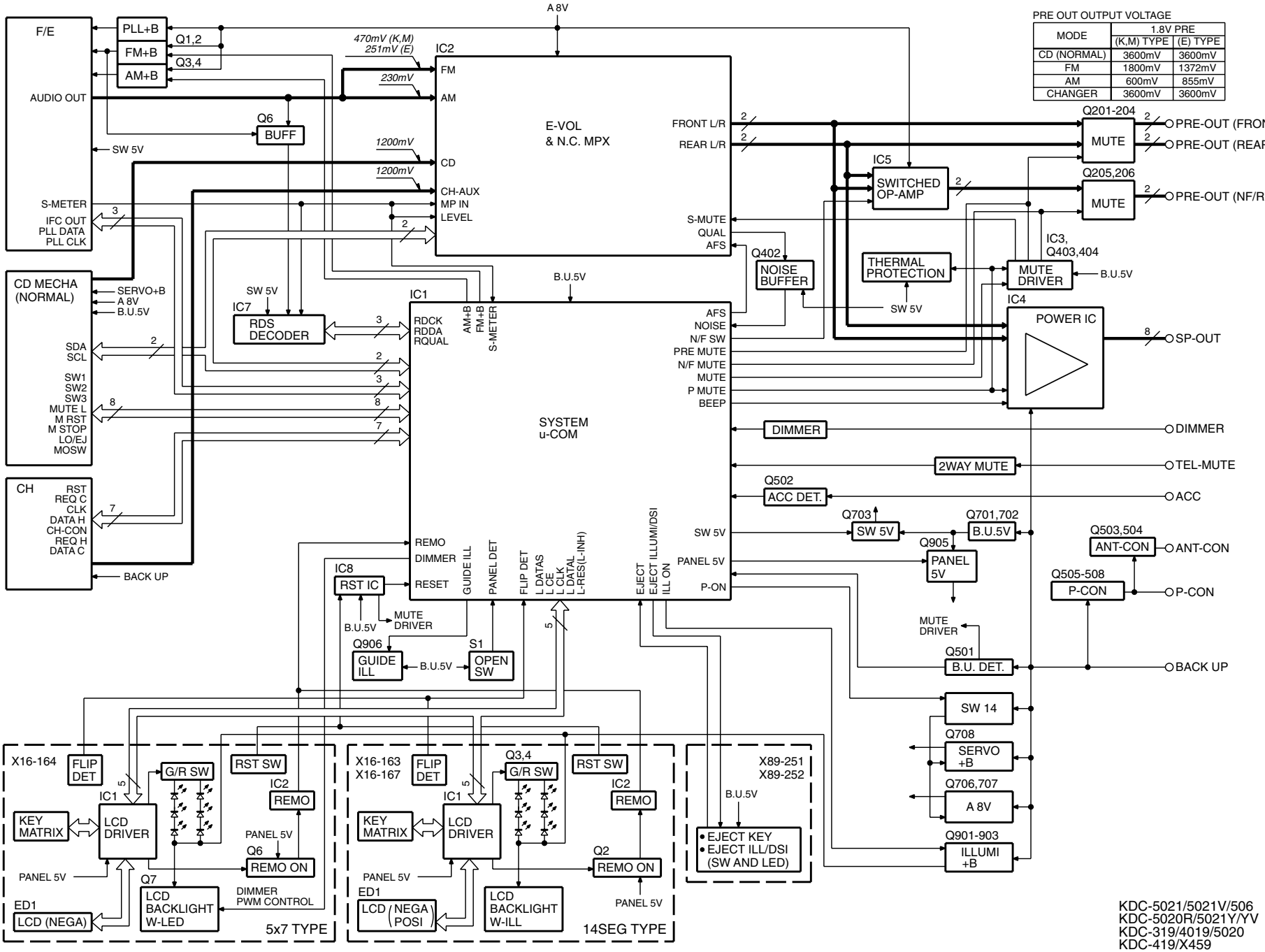


The following reference numbers with accessory parts are the same reference numbers used on EXPLODED VIEW and PARTS LIST.



KDC-319/4019,5020

BLOCK DIAGRAM



PRE OUT OUTPUT VOLTAGE

MODE	1.8V PRE	
	(K,M) TYPE	(E) TYPE
CD (NORMAL)	3600mV	3600mV
FM	1800mV	1372mV
AM	600mV	855mV
CHANGER	3600mV	3600mV

KDC-5021/5021V/506
KDC-5020R/5021Y/YV
KDC-319/4019/5020
KDC-419/X459

COMPONENT DESCRIPTION

ELECTRIC UNIT (X25-921x-xx)

REF. No.	FUNCTION	OPERATION
IC1	SYSTEM u-COM	System u-com.
IC2	E-VOL/NC/MPX	E-volume, Noise Chancellor, Multiplexer.
IC3	MUTE	4 inputs, 3 NOR gates.
IC4	POWER IC	Power IC.
IC5	SWITCHING OP AMP	Switches operation amplifier.
IC7	RDS DEMODULATOR	Demodulates RDS.
IC8	RESET IC	"L" when detection voltage goes below 3.0V.
IC9	EEPROM	EEPROM.
Q1	FM+B SW	Q1 turns on when Q2 base level goes "H".
Q2	FM+B SW	Turns on when FM signal exists.
Q3	AM+B SW	Q3 turns on when Q4 base level goes "H".
Q4	AM+B SW	Turns on when AM signal exists.
Q6	IFC BUFFER	Shapes wave form.
Q201	PRE MUTE SW (FRONT Lch)	Mutes when the base level goes "H".
Q202	PRE MUTE SW (FRONT Rch)	Mutes when the base level goes "H".
Q203	PRE MUTE SW (REAR Lch)	Mutes when the base level goes "H".
Q204	PRE MUTE SW (REAR Rch)	Mutes when the base level goes "H".
Q205	PRE MUTE SW (NON-FADER Lch)	Pre mute SW.
Q206	PRE MUTE SW (REAR Rch)	Pre mute SW.
Q401	E-VOL MUTE SW	Mutes E-vol when the base level goes "H".
Q402	NOISE BUFFER	Buffers noise.
Q403,404	AUDIO MUTE DRIVER	Turns on when the base level goes "L".
Q501	BU & MOMENTARY POWER DOWN DETECTOR	Turns on when the base level goes "H" during the back-up effects.
Q502	ACC DETECTOR	Turns on when the base level goes "H" during ACC effects.
Q503,504	P-ANT SW	Q503 turns on when Q504 base level goes "H".
Q505	P-CON SW	Q505 turns on when Q508 base level goes "H".
Q506	P-CON PROTECTOR	Protects Q505 by Q506 turning on when P-CON output effect stops.
Q507	P-CON PROTECTOR	Prevents Q507 turning on during being stand-by after turning power on.
Q508	P-CON SW	Q505 turns on when Q508 base level goes "H".
Q510	SMALL LAMP DETECTOR	Turns on when the base level goes "H" during illumination lights.
Q701,702	BU 5V AVR	Turns on when the back-up effects.
Q703	SW 5V	Turns on when the base level goes "L".
Q704,705	AUDIO 8V & SERVO +B AVR ON/OFF SW	Q704 turns on when Q705 base level goes "H".
Q706,707	AUDIO 8V AVR	Output voltage is 8.3V.
Q708	SERVO +B AVR	Output voltage is 7.4V.
Q901-903	ILLUMINATION AVR	AVR output turns on when Q901 base level goes "H".
Q905	PANEL 5V SW	Turns on when the base level goes "L".
Q906	GUIDE ILLUMI SW	Turns on when the base level goes "L".
Q907	EJECT KEY & DSI ILLUMI SW	Turns on when the base level goes "L".

COMPONENT DESCRIPTION

SWITCH UNIT (X16-163x-xx)

REF. No.	FUNCTION	OPERATION
IC1	LCD DRIVER	Drives LCD.
IC2	REMOTE CONTROLLER	Controls the unit.
Q1	KEY SCAN START	Turns on when the base level goes "L".
Q2	IC2 POWER SUPPLY SW	Turns on when the base level goes "L".
Q3	KEY GREEN ILLUMI SW	Turns on when the base level goes "H".
Q4	KEY RED ILLUMI SW	Turns on when the base level goes "H".

MICROCOMPUTER'S TERMINAL DESCRIPTION

(X25-) IC1 : u-COM

PORT No.	PORT NAME	I/O	FUNCTION	OPERATING CONDITION
1	TYPE 0	I	Destination switch.	-
2	TYPE 1	I	Destination switch.	-
3	FLIP DET	I	Panel open/close detection.	"H" : Panel opened. "L" : Panel closed.
4	AVSS	-	GND.	-
5	PANEL DET	I	Panel presence detection.	"H" : Panel does not exists. "L" : Panel exists.
6	E2P DET	I	EEPROM presence detection.	"H" : ROM exists. "L" : ROM does not exist.
7	AVREF 1	I	Reference voltage.	To BU 5V.
8	CH DATA C	I	Data from the changer.	-
9	CH DATA H	O	Data to the changer.	-
10	CH CLK	I/O	Clock signal from or to the changer.	-
11	L DATA L	I	Data from LCD driver.	Max 600KHz communication speed.
12	L DATA S	O	Data to LCD driver.	Max 1.2MHz communication speed.
13	L CLK	O	Clock signal to LCD driver.	-
14	L CE	O	LCD driver enable.	"H" : Driver selected. "L" : Driver non-selected.
15	BEEP	O	Buzzer.	-
16	PLL DATA	I/O	Data from or to the front-end.	-
17	$\overline{\text{L RST}}$	O	LCD driver reset.	"L" : Reset.
18	PLL CLK	O	Clock signal to the front-end.	-
19	$\overline{\text{GUIDE ILLUMI}}$	O	Guide illumination control.	"L": Illumination turns on. "H" : Illumination turns off.
20	$\overline{\text{EJECT ILLUMI/DSI}}$	O	EJECT/DSI illumination control.	"L" : Illumination turns on. "H" : Illumination turns off.
21	$\overline{\text{PANEL}}$	I/O	Panel power supply control.	"L" : Panel exists, ACC turns off.
22	$\overline{\text{LO}}$/EJ	I/O	CD-mecha/Loading/Eject switch.	"L" : Loading. "H" : Eject.
23	MOSW	O	CD-mecha/Motor switch.	"H" : Loading, eject, breaking.
24	$\overline{\text{M MUTE}}$	I	Lch mute request from CD mechanism.	"L" : Mute.
25	-	-	-	-
26	$\overline{\text{M STOP}}$	O	Stop request to CD mechanism.	"L" : Mechanism stop. "H" : CD playing.
27	$\overline{\text{M RST}}$	O	CD mechanism reset.	"L" : Reset.
28	CD DOWN	I	CD down switch detection.	"H" : Chucking.
29	ILLUMI ON	O	Illumination power control.	"H" : Illumination turns on. "L" : Illumination turns off.
30	IC2 TYPE 1	I	IC2 destination switch.	"L" : Pure KENWOOD brand. "H" : Genuine.
31	$\overline{\text{P-ON}}$	I/O	SW 5V control.	"L" : P-ON turns on.
32	IC2 CLK	O	Clock signal to IC2 or CD mechanism.	-
33	VSS 1	-	GND.	-
34	IC2 DATA	I/O	Data from or to IC2 or CD mechanism.	-
35	R QUAL	I	RDS QUAL.	"L" : Model without RDS.
36	R DATA	I	RDS data.	"L" : Model without RDS.
37	$\overline{\text{AFS}}$	O	Noise detection time constant switch.	"L" : FM seeking, AF searching. "H" : Signal receiving.
38	IC2 TYPE 0	I	IC2 destination switch.	"L" : Pure KENWOOD brand. "H" : Genuine.
39	AM+B	O	AM power supply.	"H" : AM signal receiving.
40	FM+B	O	FM power supply.	"H" : FM signal receiving.
41	CH MUTE	I	Mute request from the changer.	"H" : Mute effects.
42	CH RST	O	Reset signal to the changer.	"H" : Reset.
43	$\overline{\text{CH REQ H}}$	O	Request to the changer.	"L" : Requesting.
44	CH CON	O	Changer control.	"H" : Changer controlled.
45	DIMMER CONT	O	Dimmer control.	"H" : Dimmer turns on.
46	MUTE	O	Mute.	"H" : Mute effects.
47	$\overline{\text{N/F MUTE}}$	O	Non-fader preout mute.	"L" : Mute effects.
48	$\overline{\text{PRE MUTE}}$	I/O	Front/Rear preout mute.	"L" : Mute effects.
49	REMOTE	I	Remote control.	-

MICROCOMPUTER'S TERMINAL DESCRIPTION

(X25-) IC1 : u-COM

PORT No.	PORT NAME	I/O	FUNCTION	OPERATING CONDITION
50	N/F SW	O	Non-fader switch.	"H" : Rear. "L" : Front.
51	P MUTE	O	Power IC mute.	"L" : Power off, all off.
52	SVR	O	SVR control.	"H" : Discharging.
53	P STBY	O	Power IC stand-by control.	"H" : Power IC turns on.
54	ANT CONT	O	Antenna control.	"H" : Tuner or the traffic information turns on.
55	P CON	O	Power control.	"H" : Power turns on.
56	BU DET	I	Back-up detection.	"L" : Back-up effects.
57	ACC DET	I	ACC detection.	"L" : ACC effects.
58	DIMMER	I	Dimmer detection.	"L" : Dimmer turns off.
59	-	-	-	-
60	RESET	I	System u-com reset.	"L" : Reset.
61	EJECT	I	Eject key.	"L" : Key turns on.
62	CH REQ C	I	Request from the changer.	"L" : Requesting.
63	R CLK	I	RDS clock.	"L" : Model without RDS.
64	KEY REQ	I	Panel key interruption.	"L" : Key requesting.
65	12cm DISC	I	12cm DISC detection switch.	"L" : 12cm disc exists.
66	LOAD SW	I	Loading switch detection.	"L" : Loading starts.
67	VSS	-	GND.	-
68	VDD	-	VDD.	-
69	X2	-	Main clock.	Oscillates during turning power on.
70	X1	I	mail clock.	-
71	TEST	I	Program power supply.	-
72	XT2	-	Sub clock.	-
73	XT1	I	Sub clock.	-
74	VDD	-	VDD.	-
75	AVDD	-	Analogue VDD.	-
76	S METER	I	Tuner S-meter voltage.	-
77	NOISE	I	Noise detection.	-
78	PHONE	I	Phone detection.	TEL MUTE : Below 1V. NAVI MUTE : Over 2.5V.
79	IFC	I	IFC.	"H" : Station signal exists.
80	TYPE 2	I	Destination switch.	-

TEST MODE

1. How to enter the test mode

While holding the Preset 1 and Preset 3 keys, reset the unit.

2. How to exit from the test mode

Reset the unit, ACC OFF, power OFF and Panel detached.

(Note) The test mode cannot be terminated by momentary power down.

3. Initial status in the test mode

- Sources : ALL OFF
- Display : All segments are lit.
- Volume : -10dB (displayed as "30")
- Loudness : OFF
- CRSC : OFF regardless of the presence of switching function.
- SYSTEM Q : Flat
- BEEP : When pressing any keys, the buzzer generates a beep at any time.

4. Special display in Tuner mode

When any of the following messages is displayed in Tuner mode, the F/E may be abnormal.

- "TNE2P NG" : The EEPROM is set to the default (unstable values) because the F/E was shipped without passing through the adjustment process, etc.
- "TNCON NG" : Communication with the F/E is not possible.

5. Forced switching of K3I

Each press of the Preset 6 key in Tuner mode should switch K3I from AUTO → Forced Wide → Forced Middle → Forced Narrow → AUTO.

The initial status is AUTO and the display shows these modes as follows.

- AUTO : FMA
- Forced Wide : FMW
- Forced Middle : FMM
- Forced Narrow : FMN

6. Test mode specifications of the CD receiver

- Forced ejection is inhibited in the reset start operation. When the unit is reset while a CD is loaded in it, the CD is not recognized by resetting.
- Each press of the Track Up key jumps to the following track numbers:
  No. 9 → No. 15 → No. 10 → No. 11 → No. 12 → No. 13 → No. 14 → No. 9 (The cycle restarts from here.)
- Each press of the Track Down key jumps to the previous track number to the track being played.
- When the number of total trucks of the MP3 disc is less than 9, 1st truck is played.

7. Audio-related specifications

- A short press of the Q key initiates the audio adjustment mode.
- Pressing the ∗ key on the remote initiates the audio adjustment mode.
- Fader is selected to the initial item.
- Continuous holding of a remote control key is inhibited.
- Bass, Middle and Treble are adjusted in 3 steps of Min / Center / Max with the Track Up/Down keys.
- Balance is adjusted in 3 steps of Left Max / Center / Right Max with the Track Up/Down keys.
- Fader is adjusted in 3 steps of Rear Max / Center / Front Max with the Track Up/Down keys.

8. Menu-related specifications

- A short press of the MENU key initiates the Menu mode.
- Pressing the DNPP/SBF key on the remote initiates the Menu mode.
- Continuous holding of a remote control key is inhibited.

9. Backup current measurement

When the unit is reset while ACC is OFF (i.e. by turning Backup ON), the MUTE terminal goes OFF in 2 seconds in place of 15 second. (The CD mechanism is not activated at this time.)

10. Special display when the display is all on

Pressing the Preset keys while the power is ALL OFF displays the following information.

[PRESET 1]	Version display (8 digits, Month/Day/Hour/Minute) (Display) xxxxxxxx : System microcomputer
[PRESET 3]	Short press : View power ON time. (The All OFF period is not counted.) Long press/hold : Clear power ON time at the power ON time displaying. (Display) PON xxxxx Max. 65535 (hours)
[PRESET 4]	Short press : Display CD operation time. Long press/hold : Clear CD operation time at the CD operation time displaying. (Display) CDT xxxxx Max. 65535 (hours)
[PRESET 5]	Short press : Display CD ejection count. Long press/hold : Clear CD ejection count at the CD ejection count displaying. (Display) EJC xxxxx Max. 65535 (times)
[PRESET 6]	Short press : Display Panel open/close count. Long press/hold : Clear Panel open/close count at the Panel open/close count. (Display) PC xxxxxx Max. 655350 (times)

• Security-related information

1. Forced Power ON mode (All models)

Even when the security (Mask key) is approved, resetting the unit while holding the ATT and Preset 4 keys makes it possible to turn the power ON for 30 minutes.

After 30 minutes have elapsed, it is not possible to return to the previous condition unless the unit is reset again.

2. Method of registration of the security code after EEPROM (Tuner Unit Ass'y) replacement (Code security model)

1. Enter the test mode. (See 1. How to enter the test mode)
2. Press the MENU key to enter the Menu mode.

TEST MODE

3. When the message "Security" is displayed, press and hold the Track Up/Down key for 1 second to enter the security registration mode.
4. Enter the code using the FM/AM/Track Up/Track Down keys.
   - FM key : Number up
   - Am key : Number down
   - Track Up key : Cursor right shift
   - Track Down key : Cursor left shift
5. Hold down the Track Up key for at least 3 seconds and the message, "RE-ENTER" appears, so once again enter the code according to Step 4 above.
6. Press and hold the Track Up key for 3 seconds until "APPROVED" is displayed.
7. Exit from the test mode. (See 2. How to exit from the test mode)
   (Note) All Clear is not applicable to the security code of this model.

3. Simplified method of clearing the security code (K Type only)

1. While the code entry is requested, press and hold the VOL UP key for 3 seconds while holding the DISP key pressed. (This should turn "----" off.)
2. Enter "KCAR" from the remote. (Same way as the 01 model)
   - Press the 5 key on the remote twice, then press the Track Up key. (This enters "K".)
   - Press the 2 key on the remote 3 times, then press the Track Up key. (This enters "C".)
   - Press the 2 key on the remote once, then press the Track Up key. (This enters "A".)
   - Press the 7 key on the remote twice, then press the Track Up key. (This enters "R".)
3. The security code is cleared and the unit enters the ALL OFF mode.
4. If you commit a mistake in the code entry, the unit enters the code request mode again.

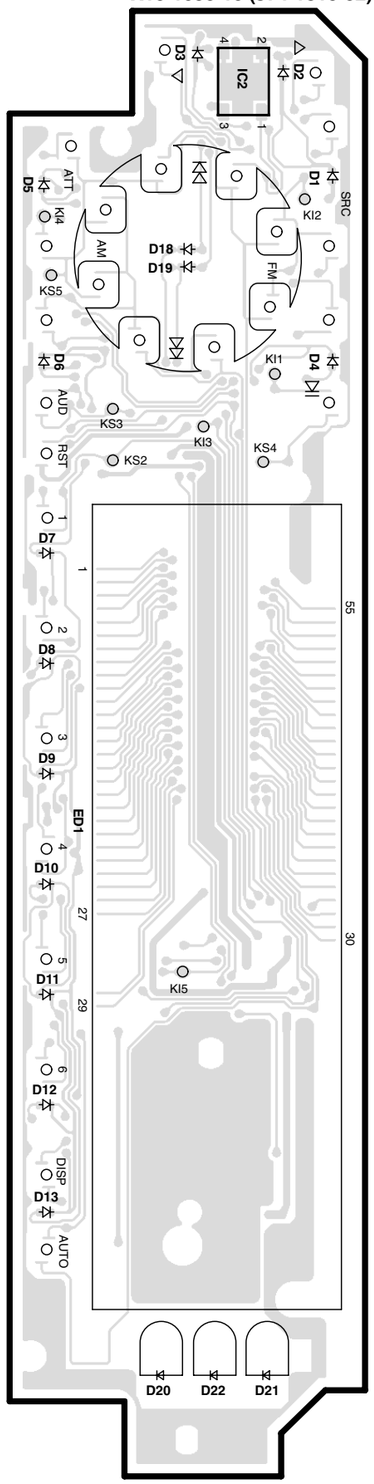
PC BOARD(Component side view)

ELECTRIC UNIT X25-921x-xx/X25-922x-xx

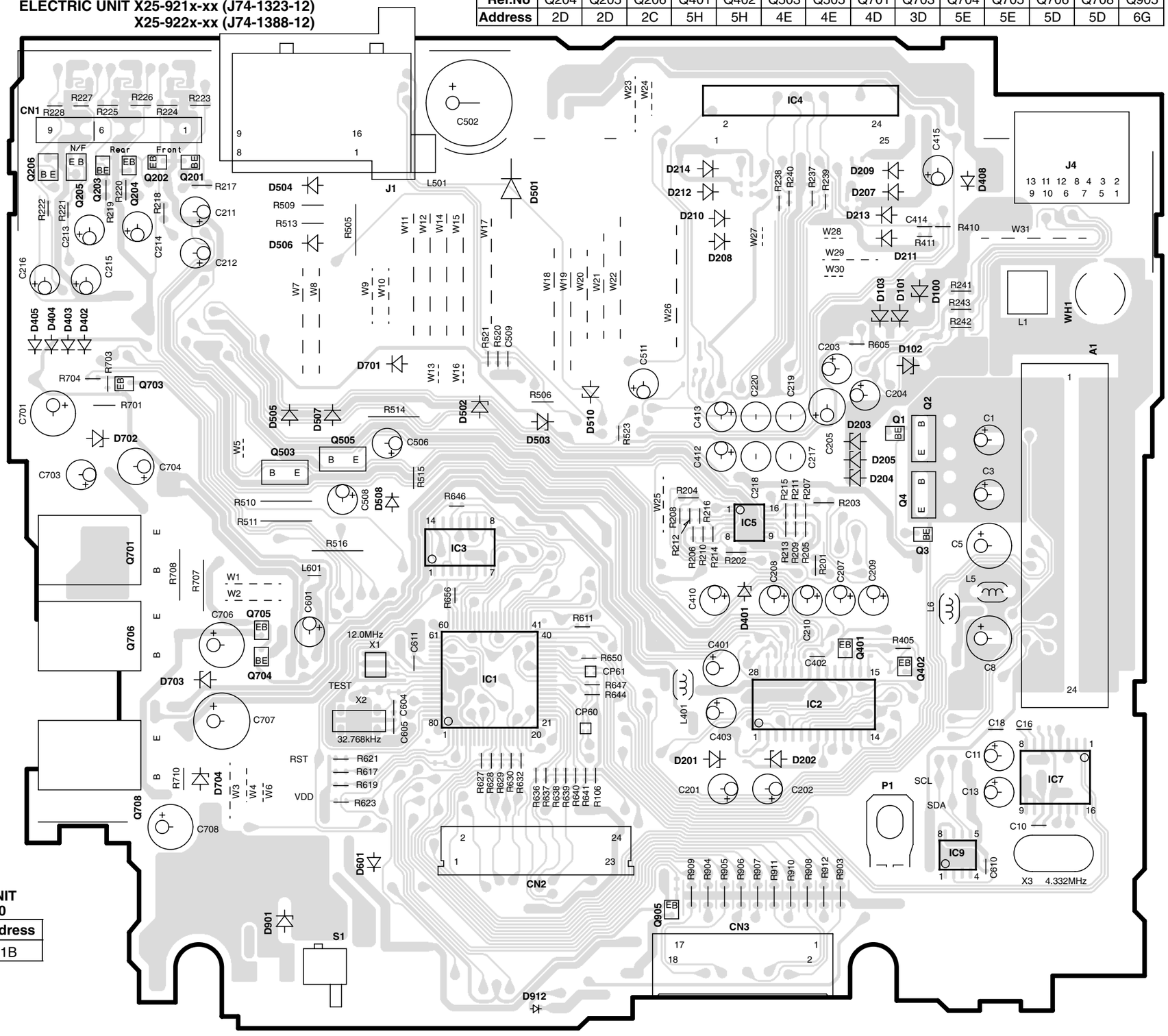
Ref.No	IC1	IC2	IC3	IC4	IC5	IC7	IC9	Q1	Q2	Q3	Q4	Q201	Q202	Q203
Address	5F	5H	4F	2H	4G	5I	6I	3H	4H	4H	4H	2D	2D	2D

Ref.No	Q204	Q205	Q206	Q401	Q402	Q503	Q505	Q701	Q703	Q704	Q705	Q706	Q708	Q905
Address	2D	2D	2C	5H	5H	4E	4E	4D	3D	5E	5E	5D	5D	6G

SWITCH UNIT
X16-1630-10 (J74-1316-02)



ELECTRIC UNIT X25-921x-xx (J74-1323-12)
X25-922x-xx (J74-1388-12)



SWITCH UNIT
X16-1630-10

Ref.No	Address
IC2	1B

Refer to the schematic diagram for the value of resistors and capacitors.

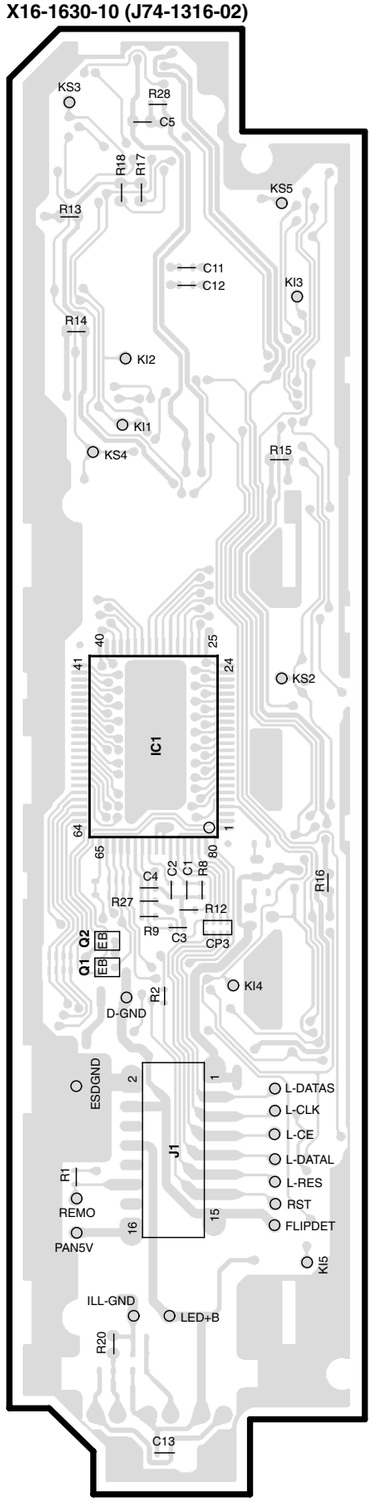
PC BOARD(Foil side view)

ELECTRIC UNIT X25-921x-xx/X25-922x-xx

Ref.No	IC8	Q6	Q403	Q404	Q501	Q502	Q504	Q506	Q507
Address	6R	5N	2S	2T	4Q	3Q	4R	4R	4R

Ref.No	Q508	Q510	Q702	Q707	Q901	Q902	Q903	Q906	Q907
Address	4R	4P	4S	5S	6R	6R	6S	7Q	6P

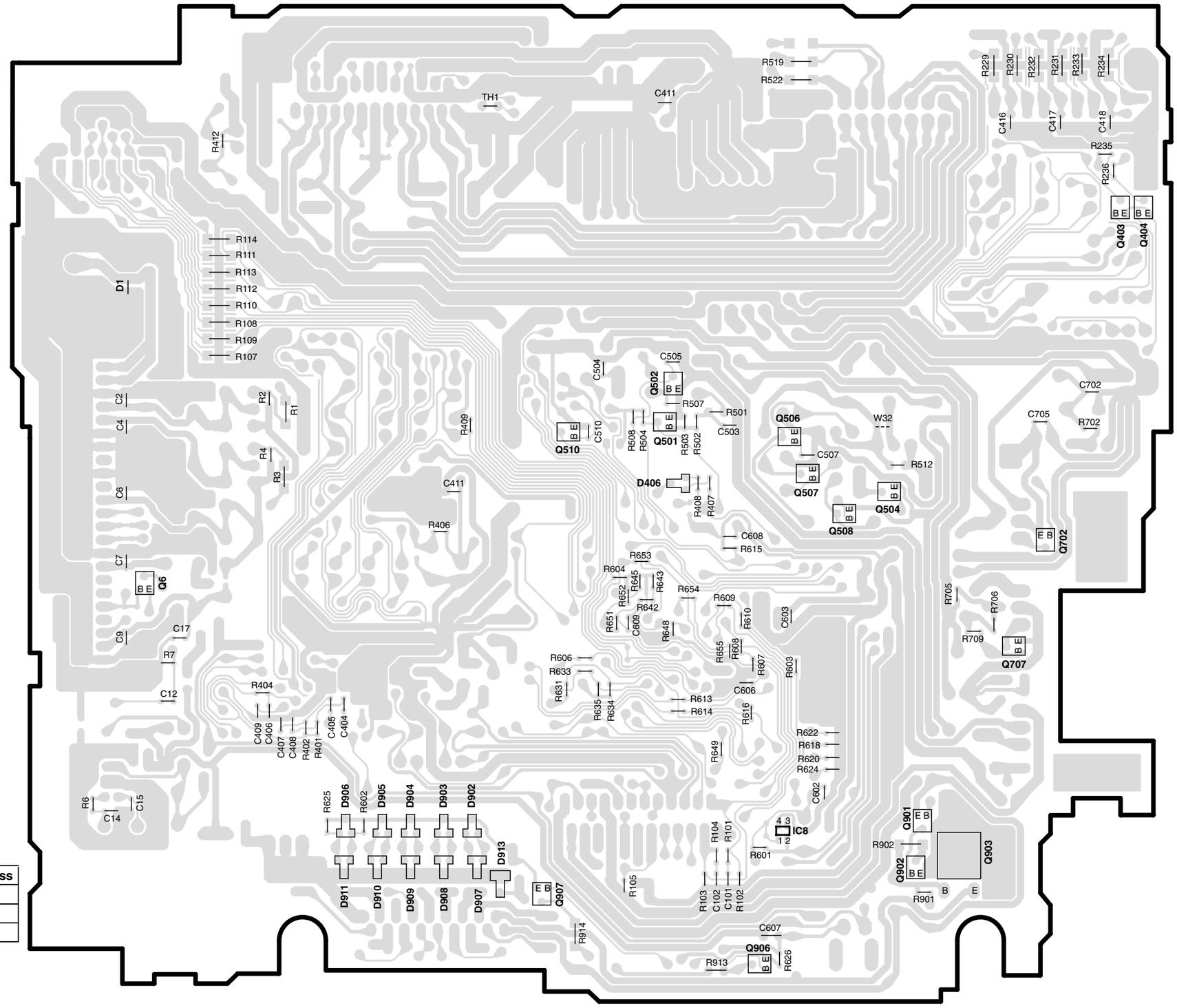
SWITCH UNIT
X16-1630-10 (J74-1316-02)



SWITCH UNIT
X16-1630-10

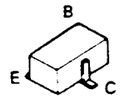
Ref.No	Address
IC	4L
Q1	5K
Q2	5K

ELECTRIC UNIT X25-921x-xx(J74-1323-12)
X25-922x-xx(J74-1388-12)



Refer to the schematic diagram for the value of resistors and capacitors.

DTC114YUA
DTC143TUA
UN5214
2SA1576A
2SB1218A
2SD1819A
2SD2114K



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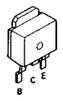
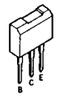


2SB1277



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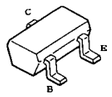

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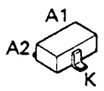
DTA124EUA
DTC124EUA

DAN202U



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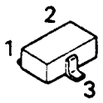
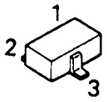
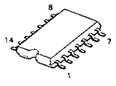
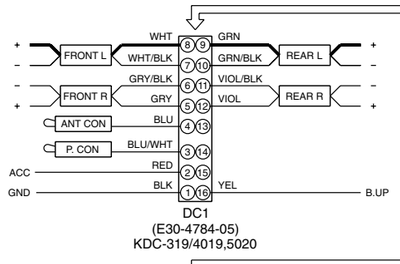


UN5212

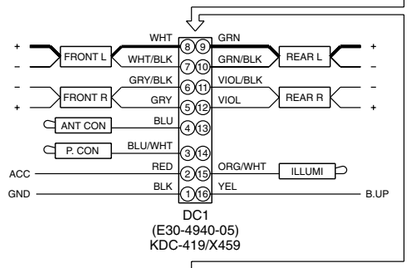


TC74HC02AF

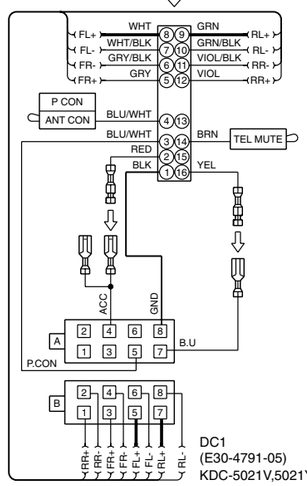




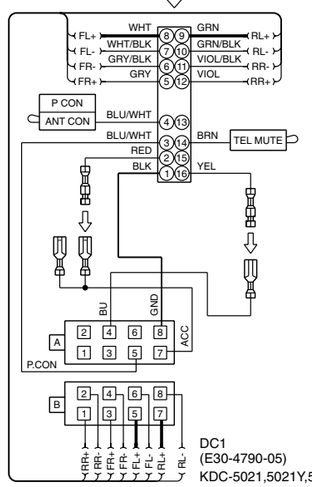
DC1
(E30-4784-05)
KDC-319/4019,5020



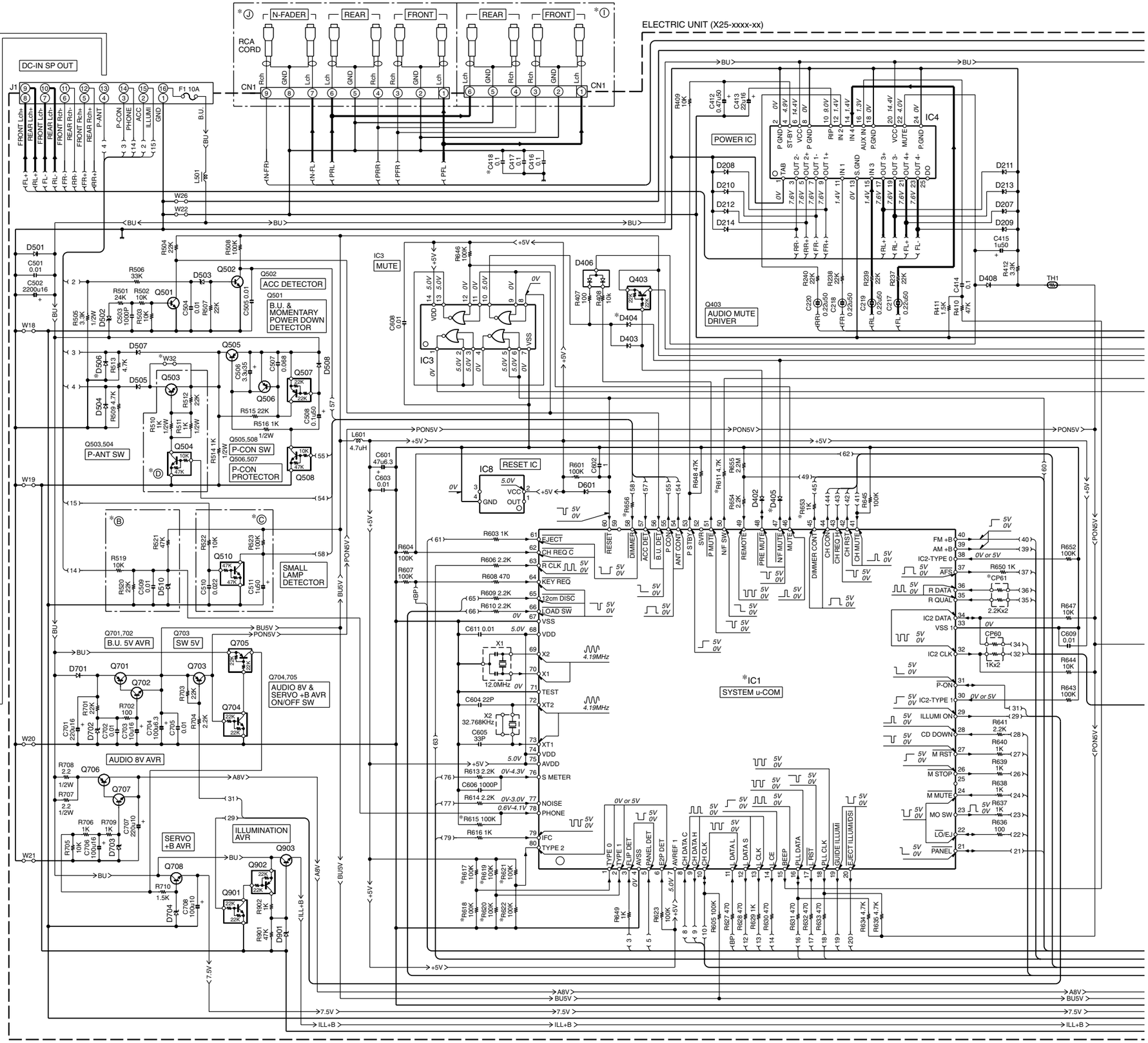
DC1
(E30-4940-05)
KDC-419/X459



DC1
(E30-4791-05)
KDC-5021V,5021YV



DC1
(E30-4790-05)
KDC-5021,5021Y,506,5020R



K L M N O P Q R S T

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

(X25-xxxx-xx)

MODEL NAME	UNIT No.	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	Ⓘ	Ⓙ	A1	C418	CP61	D404, 405	D506
KDC-419 (K)	X25-9210-10	NO	YES	YES	NO	NO	NO	NO	YES	NO	X86-3240-11	NO	NO	NO	YES
KDC-X459 (K)	X25-9210-11	NO	YES	YES	YES	NO	NO	NO	YES	NO	X86-3240-11	YES	NO	NO	YES
KDC-319 (K)	X25-9210-12	NO	NO	YES	NO	NO	NO	NO	YES	NO	X86-3240-11	NO	NO	NO	YES
KDC-5020 (M)	X25-9210-21	NO	NO	YES	NO	NO	NO	NO	YES	NO	X86-3240-11	NO	NO	NO	YES
KDC-5021Y (E2)	X25-9212-71	YES	NO	NO	NO	NO	YES	YES	YES	NO	X86-3242-70	NO	YES	NO	NO
KDC-5021 (E)	X25-9222-70	YES	NO	NO	NO	NO	YES	YES	YES	NO	X86-3342-71	NO	YES	NO	NO
KDC 506 (E)	X25-9222-71	YES	NO	NO	NO	NO	YES	YES	YES	NO	X86-3342-71	NO	YES	NO	NO
KDC-5021YV (E2)	X25-9212-72	YES	NO	NO	NO	NO	YES	YES	YES	NO	X86-3342-70	NO	YES	NO	NO
KDC-5021V (E)	X25-9222-72	YES	NO	NO	NO	NO	YES	YES	YES	NO	X86-3342-71	NO	YES	NO	NO
KDC-4019 (K)	X25-9210-13	NO	NO	YES	YES	YES	NO	NO	NO	YES	X86-3240-11	YES	NO	YES	YES
KDC-5020R (M)	X25-9210-22	YES	NO	NO	NO	NO	YES	YES	YES	NO	X86-3242-70	NO	YES	NO	NO

MODEL NAME	UNIT No.	IC1	IC9	R611	R615	R617	R618	R619	R620	R621	R622	R653, 656	R909	W32
KDC-419 (K)	X25-9210-10	UPD784225GC156	BR24C01AF-W	NO	YES	NO	YES	NO	YES	NO	YES	YES	YES	NO
KDC-X459 (K)	X25-9210-11	UPD784225GC156	BR24C02F-W	YES	YES	NO	YES	YES	NO	NO	YES	YES	YES	NO
KDC-319 (K)	X25-9210-12	UPD784225GC157	NO	NO	YES	NO	YES	NO	YES	NO	YES	NO	NO	NO
KDC-5020 (M)	X25-9210-21	UPD784225GC157	NO	NO	YES	YES	NO	NO	YES	NO	YES	NO	NO	NO
KDC-5021Y (E2)	X25-9212-71	UPD784225GC157	NO	NO	NO	NO	YES	YES	NO	NO	YES	NO	NO	YES
KDC-5021 (E)	X25-9222-70	UPD784225GC157	NO	NO	NO	NO	YES	YES	NO	NO	YES	NO	NO	YES
KDC 506 (E)	X25-9222-71	UPD784225GC157	NO	NO	NO	NO	YES	YES	NO	NO	YES	NO	NO	YES
KDC-5021YV (E2)	X25-9212-72	UPD784225GC157	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES
KDC-5021V (E)	X25-9222-72	UPD784225GC157	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES
KDC-4019 (K)	X25-9210-13	UPD784225GC157	NO	YES	YES	YES	NO	NO	YES	NO	YES	NO	NO	NO
KDC-5020R (M)	X25-9210-22	UPD784225GC157	NO	NO	NO	NO	YES	YES	NO	YES	NO	NO	NO	YES

IC1 : *
IC2 : TDA7407D
IC3 : TC74HC02AF
IC4 : TA8273H
IC5 : NJM2123V-TE2
IC7 : SAA6581T
IC8 : S-80830ANNP
IC9 : *

D1 : IMSA-6801
D100-103 : MA4062-L
D201-205,502,503 : MA4068(N)-M
D207-214,504-507,701 : AMO1Z
D401 : MTZJ4.3(B)
D402-405,408,508,601 : 1SS133
D406,907-911 : DAP202U
D501 : 1N5393G-M5
D510 : MA4047-M
D702 : MA4056(N)-M
D703 : MA4091(N)-L
D704 : MA4082(N)-L
D901 : MA4110-L
D902-906 : DAN202U
D912 : B30-1567-05
D913 : MA3062

Q1,3,401,704,901 : DTC124EUA
Q2,4,503,505 : 2SB1277(Q,R) or 2SB1434
Q6,201-204,402 : DTC143TUA
Q205,206 : 2SC2114K
Q403,404,507,705,902 : DTA124EUA
Q501,502,702,707 : 2SC4081
Q504,508 : DTC114YUA
Q506,703 : 2SA1576A
Q510 : DTC144EUA
Q701,706 : 2SA2057
Q708 : 2SD2375
Q903 : 2SD1760
Q905-907 : DTA114YUA

SIGNAL LINE
GND LINE
+B ← +B LINE

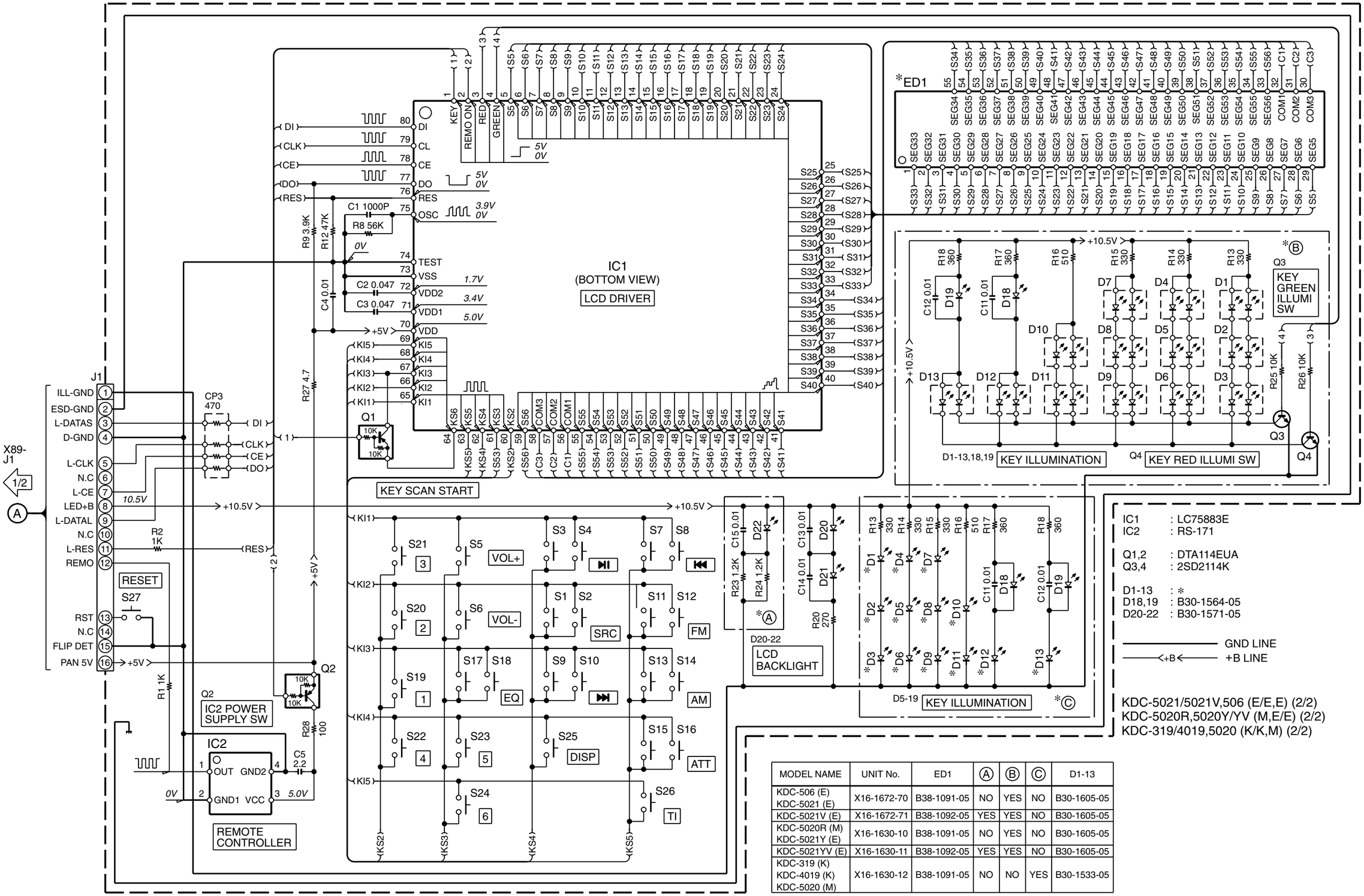
(X89-xxxx-xx)

KDC-5021/5021V,506 (E/E,E) (1/2)
KDC-5020R,5021Y/YV (M,E/E) (1/2)
KDC-319/4019,5020 (K/K,M) (1/2)
KDC-419/X459 (K/K) (1/2)

KDC-319/4019,5020

KENWOOD

SWITCH UNIT (X16-16xx-xx)



KDC-5021/5021V,506 (E/E,E) (2/2)
KDC-5020R,5020Y/YV (M,E/E) (2/2)
KDC-319/4019,5020 (K/K,M) (2/2)

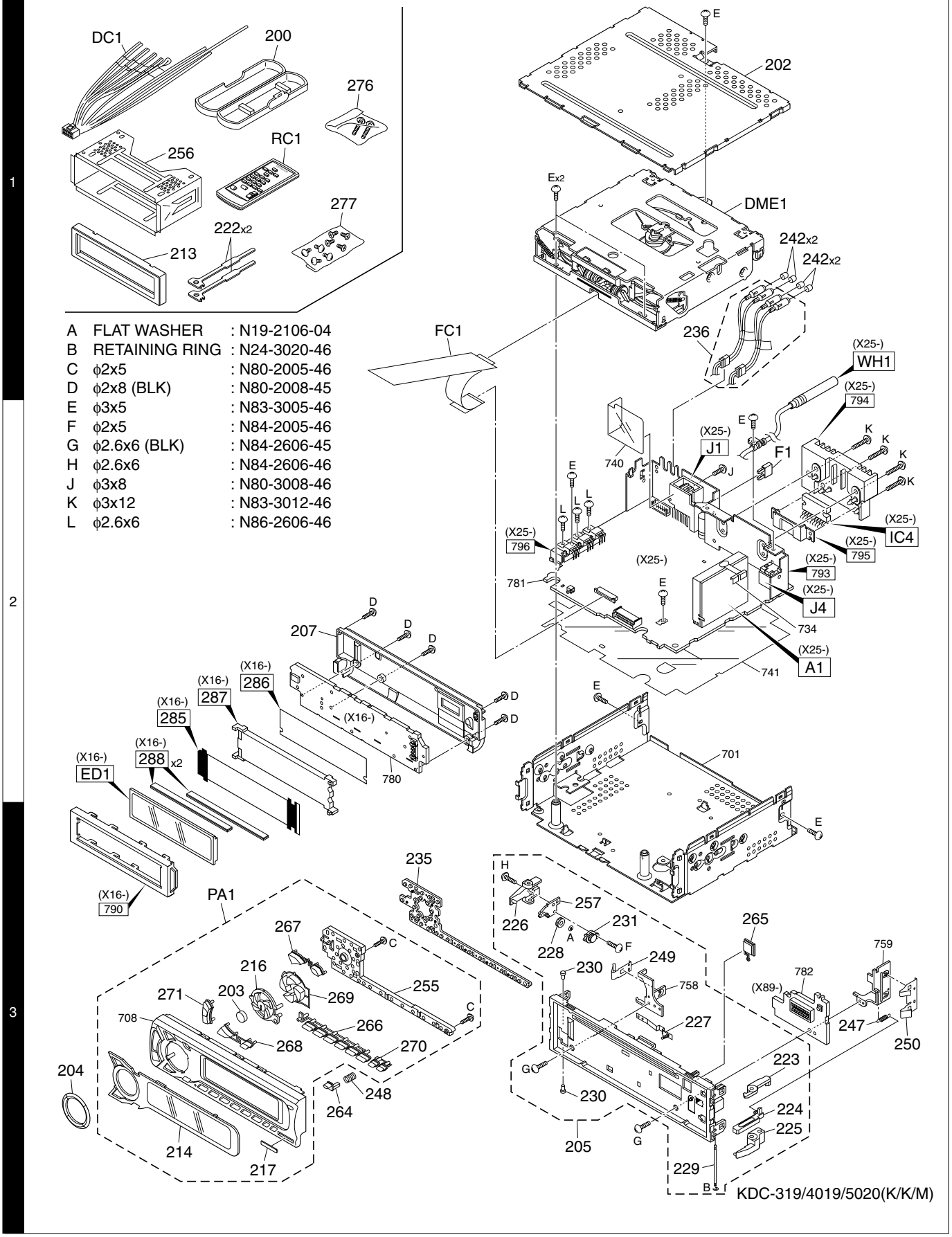
MODEL NAME	UNIT No.	ED1	Ⓐ	Ⓑ	Ⓒ	D1-13
KDC-506 (E) KDC-5021 (E)	X16-1672-70	B38-1091-05	NO	YES	NO	B30-1605-05
KDC-5021V (E)	X16-1672-71	B38-1092-05	YES	YES	NO	B30-1605-05
KDC-5020R (M) KDC-5021Y (E)	X16-1630-10	B38-1091-05	NO	YES	NO	B30-1605-05
KDC-5021YV (E)	X16-1630-11	B38-1092-05	YES	YES	NO	B30-1605-05
KDC-319 (K) KDC-4019 (K) KDC-5020 (M)	X16-1630-12	B38-1091-05	NO	NO	YES	B30-1533-05

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KDC-319/4019,5020

KENWOOD

EXPLODED VIEW



A	FLAT WASHER	: N19-2106-04
B	RETAINING RING	: N24-3020-46
C	ϕ2x5	: N80-2005-46
D	ϕ2x8 (BLK)	: N80-2008-45
E	ϕ3x5	: N83-3005-46
F	ϕ2x5	: N84-2005-46
G	ϕ2.6x6 (BLK)	: N84-2606-45
H	ϕ2.6x6	: N84-2606-46
J	ϕ3x8	: N80-3008-46
K	ϕ3x12	: N83-3012-46
L	ϕ2.6x6	: N86-2606-46

Parts with exploded numbers larger than 700 are not supplied.

KDC-319/4019,5020

PARTS LIST

✻New Parts
Parts without **Part No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	Add	New	Parts No.	Description	Destination
KDC-319/4019,5020					
200	1A		A02-1486-13	PLASTIC CABINET ASSY	
202	1B		A52-0806-02	TOP PLATE	
203	3A	✻	A21-4172-04	DRESSING PANEL	
204	3A	✻	A21-4173-03	DRESSING PANEL	
205	3B	✻	A22-2932-02	SUB PANEL ASSY	
207	2A	✻	A46-1754-01	REAR COVER	
PA1	3A	✻	A64-2594-02	PANEL ASSY	K5
PA1	3A	✻	A64-2595-02	PANEL ASSY	K6
PA1	3A	✻	A64-2598-02	PANEL ASSY	M2
RC1	1A		A70-2025-05	REMOTE CONTROLLER ASSY (RC-410)	
213	1A		B07-3055-02	ESCUTCHEON	K6M2
213	1A		B07-3060-02	ESCUTCHEON	K5
214	3A	✻	B10-4172-01	FRONT GLASS	K5
214	3A	✻	B10-4173-01	FRONT GLASS	K6
214	3A	✻	B10-4176-01	FRONT GLASS	M2
216	3A	✻	B19-2138-03	LIGHTING BOARD	
217	3A		B43-1284-04	BADGE	
-			B46-0100-50	WARRANTY CARD	
-			B46-0606-04	ID CARD	K5K6
-			B46-0612-14	ID CARD	M2
-			B46-0645-03	USER CARD	K5K6
-		✻	B64-2243-00	INST. MANUAL (ENG,FRE,SPA)	K5K6
-		✻	B64-2244-00	INST. MANUAL (ENG,T-CHI)	M2
-		✻	B64-2245-00	INST. MANUAL (ARABIC)	M2
222	1A		D10-4589-04	LEVER	
223	3B	✻	D10-4666-04	LEVER	
224	3B	✻	D10-4667-04	LEVER	
225	3B	✻	D10-4668-04	LEVER	
226	3B	✻	D10-4669-03	LEVER	
227	3B	✻	D10-4673-04	LEVER ASSY	
228	3B	✻	D13-2232-04	GEAR	
229	3B	✻	D21-2404-04	SHAFT	
230	3B	✻	D21-2405-04	SHAFT	
231	3B	✻	D39-0255-05	DAMPER	
235	3A	✻	E29-1881-02	CONDUCTIVE RUBBER	
236	1B	✻	E30-6050-05	CORD WITH PINPLUG	K5M2
236	1B	✻	E30-6052-05	CORD WITH PINPLUG	K6
⚠ DC1	1A		E30-4784-05	DC CORD	
FC1	1A	✻	E39-0438-05	FLAT CABLE	
242	1B		F29-0049-05	INSULATING COVER	
⚠ F1	2B		F52-0006-05	FUSE (MINI BLADE TYPE) (10A)	
⚠ F1	2B		F52-0011-05	FUSE (MINI BLADE TYPE) (10A)	
247	3B	✻	G01-3128-04	EXTENSION SPRING	
248	3A	✻	G01-3129-04	COMPRESSION SPRING	
249	3B	✻	G02-1425-04	FLAT SPRING	
250	3B	✻	G02-1426-04	FLAT SPRING	
-		✻	H10-4806-12	POLYSTYRENE FOAMED FIXTURE	
-			H25-0329-04	PROTECTION BAG (280X450X0.03)	
-			H25-0337-04	PROTECTION BAG (180X300X0.03)	
-		✻	H54-2357-03	ITEM CARTON CASE (KDC-319)	K5
-		✻	H54-2358-03	ITEM CARTON CASE (KDC-4019)	K6
-		✻	H54-2361-03	ITEM CARTON CASE (KDC-5020)	M2

Ref. No.	Add	New	Parts No.	Description	Destination
255	3A	✻	J19-5138-02	HOLDER	
256	1A		J21-9716-03	MOUNTING HARDWARE ASSY	
257	3B	✻	J21-9809-04	MOUNTING HARDWARE ASSY	
264	3A	✻	K24-3831-04	KNOB (RELEASE)	
265	3B	✻	K24-3832-04	KNOB (EJECT)	
266	3A	✻	K25-1409-03	KNOB (PRESET)	
267	3A	✻	K25-1410-03	KNOB (SRC)	
268	3A	✻	K25-1411-03	KNOB (ATT)	
269	3A	✻	K25-1412-03	KNOB (FM/AM)	
270	3A	✻	K25-1413-03	KNOB (DISP)	
271	3A	✻	K25-1414-03	KNOB (VOL)	
276	1A		N99-1656-05	SCREW SET	
277	1A		N99-1719-05	SCREW SET	
A	3B		N19-2106-04	FLAT WASHER	
B	3B		N24-3020-46	E TYPE RETAINING RING	
C	3A		N80-2005-46	PAN HEAD TAPTITE SCREW	
D	2A		N80-2008-45	PAN HEAD TAPTITE SCREW	
E	1B		N83-3005-46	PAN HEAD TAPTITE SCREW	
F	3B		N84-2005-46	PAN HEAD TAPTITE SCREW	
G	3B		N84-2606-45	PAN HEAD TAPTITE SCREW	
H	3B		N84-2606-46	PAN HEAD TAPTITE SCREW	
DME1	1B	✻	X92-4430-00	MECHANISM ASSY	
SWITCH UNIT (X16-1630-12)					
285	2A	✻	B11-1367-04	OPTICAL DIFFUSER	
286	2A	✻	B11-1366-04	REFLECTION SHEET	
287	2A	✻	B19-2135-03	LIGHTING BOARD	
D1 -13			B30-1533-05	LED (PG)	
D18 ,19			B30-1564-05	LED (BLUE)	
D20 ,21			B30-1571-05	LED (WHITE)	
ED1	2A	✻	B38-1091-05	LIQUID CRYSTAL	
C1			CK73GB1H102K	CHIP C 1000PF K	
C2 ,3			CK73GB1E473K	CHIP C 0.047UF K	
C4			CK73GB1H103K	CHIP C 0.010UF K	
C5			CK73FB1A225K	CHIP C 2.2UF K	
C11 -14			CK73GB1H103K	CHIP C 0.010UF K	
288	2A	✻	E29-1882-04	CONDUCTIVE RUBBER	
J1			E59-0829-05	RECTANGULAR PLUG	
CP3			R90-1016-05	MULTI-COMP 470 X4	
R1 ,2			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R8			RK73GB2A563J	CHIP R 56K J 1/10W	
R9			RK73GB2A392J	CHIP R 3.9K J 1/10W	
R12			RK73GB2A473J	CHIP R 47K J 1/10W	
R13 -15			RK73FB2B331J	CHIP R 330 J 1/8W	
R16			RK73FB2B511J	CHIP R 510 J 1/8W	
R17 ,18			RK73FB2B361J	CHIP R 360 J 1/8W	
R20			RK73FB2B271J	CHIP R 270 J 1/8W	
R27			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R28			RK73GB2A101J	CHIP R 100 J 1/10W	
IC1			LC75883E	MOS-IC	
IC2			RS-171	ANALOGUE IC	
Q1 ,2			DTA114EUA	DIGITAL TRANSISTOR	
Q1 ,2			KRA302	DIGITAL TRANSISTOR	

E : Europe **K** : North America **M** : Other Areas

K5 : KDC-319
K6 : KDC-4019
M2 : KDC-5020

⚠ indicates safety critical components.

PARTS LIST

✻New Parts
Parts without **Part No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

ELECTRIC UNIT (X25-921x-xx)

Ref. No.	Add	New	Parts No.	Description			Destination
D912			B30-1567-05	LED (RED)			
C1			CE04NW1C100M	ELECTRO	10UF	16WV	
C2			CK73GB1H103K	CHIP C	0.010UF	K	
C3			CE04NW1C100M	ELECTRO	10UF	16WV	
C4			CK73GB1H103K	CHIP C	0.010UF	K	
C5			CE04NW1A101M	ELECTRO	100UF	10WV	
C6			CK73GB1H103K	CHIP C	0.010UF	K	
C8			CE04NW1A101M	ELECTRO	100UF	10WV	
C9			CK73GB1H103K	CHIP C	0.010UF	K	
C17			CK73GB1C104K	CHIP C	0.10UF	K	
C18			CK73GB1H103K	CHIP C	0.010UF	K	
C101,102			CK73GB1H103K	CHIP C	0.010UF	K	
C201-204			CE04NW1HR47M	ELECTRO	0.47UF	50WV	
C205			CE04NW1A470M	ELECTRO	47UF	10WV	
C207-216			CE04NW1C100M	ELECTRO	10UF	16WV	K6
C211-214			CE04NW1C100M	ELECTRO	10UF	16WV	K5M2
C217-220			C90-5296-05	NP-ELECT	0.22UF	50WV	
C401			CE04NW1A470M	ELECTRO	47UF	10WV	
C402			CK73GB1H103K	CHIP C	0.010UF	K	
C403			CE04NW1H2R2M	ELECTRO	2.2UF	50WV	
C404			CK73GB1E333K	CHIP C	0.033UF	K	
C405			CK73GB1A474K	CHIP C	0.47UF	K	
C406			CK73GB1C104K	CHIP C	0.10UF	K	
C407			CC73GCH1H151J	CHIP C	150PF	J	
C408			CK73GB1H103K	CHIP C	0.010UF	K	
C409			CK73GB1C104K	CHIP C	0.10UF	K	
C410			CE04NW1C100M	ELECTRO	10UF	16WV	K6
C411			CK73GB1H103K	CHIP C	0.010UF	K	K6
C412			CE04NW1HR47M	ELECTRO	0.47UF	50WV	
C413			CE04NW1C220M	ELECTRO	22UF	16WV	
C414			CK73GB1C104K	CHIP C	0.10UF	K	
C415			CE04NW1H010M	ELECTRO	1.0UF	50WV	
C416-418			CK73FB1E104K	CHIP C	0.10UF	K	K6
C416,417			CK73FB1E104K	CHIP C	0.10UF	K	K5M2
C501			CK73GB1H103K	CHIP C	0.010UF	K	
C502			C90-5235-05	ELECTRO	2200UF	16WV	
C503			CK73GB1H102K	CHIP C	1000PF	K	
C504,505			CK73GB1H103K	CHIP C	0.010UF	K	
C506			CE04NW1V3R3M	ELECTRO	3.3UF	35WV	
C507			CK73GB1C683K	CHIP C	0.068UF	K	
C507			CK73GB1H683K	CHIP C	0.068UF	K	
C508			CE04NW1H0R1M	ELECTRO	0.1UF	50WV	
C601			CE04NW0J470M	ELECTRO	47UF	6.3WV	
C602			CK73GB0J105K	CHIP C	1.0UF	K	
C603			CK73GB1H103K	CHIP C	0.010UF	K	
C604			CC73GCH1H220J	CHIP C	22PF	J	
C605			CC73GCH1H330J	CHIP C	33PF	J	
C606			CK73GB1H102K	CHIP C	1000PF	K	
C607			CK73FB1C224K	CHIP C	0.22UF	K	
C608,609			CK73GB1H103K	CHIP C	0.010UF	K	
C611			CK73GB1H103K	CHIP C	0.010UF	K	
C701			C90-2866-05	ELECTRO	220UF	16WV	

(X25-921x-xx)

Ref. No.	Add	New	Parts No.	Description				Destination
C702			CK73GB1H103K	CHIP C	0.010UF	K		
C703			CE04NW1C100M	ELECTRO	10UF	16WV		
C704			CE04NW0J101M	ELECTRO	100UF	6.3WV		
C705			CK73GB1H103K	CHIP C	0.010UF	K		
C706			CE04NW1C101M	ELECTRO	100UF	16WV		
C707			CE04CW1A221M	ELECTRO	220UF	10WV		
C708			CE04NW1A101M	ELECTRO	100UF	10WV		
CN1			E40-3241-05	PIN ASSY				K5M2
CN1			E40-5066-05	PIN ASSY				K6
CN2		✻	E41-0168-05	FLAT CABLE CONNECTOR				
CN3		✻	E41-0167-05	PIN ASSY				
⚠ J1			E58-0863-15	RECTANGULAR RECEPTACLE				
J4			E56-0834-05	CYLINDRICAL RECEPTACLE				
P1			E23-0745-05	TERMINAL				
W1 -31			E31-0001-00	JUMPER WIRE				
WH1			E30-4804-05	CORD WITH PLUG				
WH1			E30-4932-05	CORD WITH PLUG				
L1			L33-1123-05	LINE FILTER COIL				
L5 ,6			L40-4795-91	SMALL FIXED INDUCTOR(4.7UH,J)				
L401			L40-4795-91	SMALL FIXED INDUCTOR(4.7UH,J)				
L501			L33-1170-05	CHOKE COIL ASSY				
L601			L40-4795-34	SMALL FIXED INDUCTOR				
L601			L40-4795-68	SMALL FIXED INDUCTOR(4.7UH)				
X1			L78-0863-05	RESONATOR (12MHZ)				
X2			L77-2738-05	CRYSTAL RESONATOR				
E	2B		N83-3005-46	PAN HEAD TAPTITE SCREW				
J	2B		N80-3008-46	PAN HEAD TAPTITE SCREW				
K	2B		N83-3012-46	PAN HEAD TAPTITE SCREW				
L	2B		N86-2606-46	BINDING HEAD TAPTITE SCREW				
CP60			R90-0725-05	MULTI-COMP	1K		X2	
R1			RK73EB2E102J	CHIP R	1.0K	J	1/4W	
R2			RK73GB2A223J	CHIP R	22K	J	1/10W	
R3			RK73EB2E102J	CHIP R	1.0K	J	1/4W	
R4			RK73GB2A223J	CHIP R	22K	J	1/10W	
R101			RK73GB2A471J	CHIP R	470	J	1/10W	
R102,103			RK73GB2A104J	CHIP R	100K	J	1/10W	
R104			RK73GB2A471J	CHIP R	470	J	1/10W	
R105			RK73GB2A104J	CHIP R	100K	J	1/10W	
R106			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R107			RK73EB2E101J	CHIP R	100	J	1/4W	
R108-112			RK73EB2E472J	CHIP R	4.7K	J	1/4W	
R113,114			RK73EB2E101J	CHIP R	100	J	1/4W	
R201-204			RK73FB2B223J	CHIP R	22K	J	1/8W	K6
R205-216			RK73GB2A223J	CHIP R	22K	J	1/10W	K6
R217-220			RK73FB2B361J	CHIP R	360	J	1/8W	
R221,222			RK73GB2A361J	CHIP R	360	J	1/10W	K6
R223-226			RK73FB2B223J	CHIP R	22K	J	1/8W	
R227,228			RK73GB2A223J	CHIP R	22K	J	1/10W	K6
R229-232			RK73EB2E181J	CHIP R	180	J	1/4W	K5M2
R229-234			RK73EB2E181J	CHIP R	180	J	1/4W	K6
R235,236			RK73GB2A473J	CHIP R	47K	J	1/10W	K6
R237-240			RK73GB2A223J	CHIP R	22K	J	1/10W	
R241,242			RK73EB2E100J	CHIP R	10	J	1/4W	
R243			RK73EB2E4R7J	CHIP R	4.7	J	1/4W	

K5 : KDC-319
K6 : KDC-4019
M2 : KDC-5020

⚠ indicates safety critical components.

KDC-319/4019,5020

PARTS LIST

✻New Parts
Parts without **Part No.** are not supplied.
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Ref. No.	Add	New	Parts No.	Description				Destination
R401			RK73GB2A103J	CHIP R	10K	J	1/10W	
R402			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R404,405			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R406			RK73GB2A102J	CHIP R	1.0K	J	1/10W	K6
R407			RK73GB2A101J	CHIP R	100	J	1/10W	
R408,409			RK73GB2A103J	CHIP R	10K	J	1/10W	
R410			RK73GB2A473J	CHIP R	47K	J	1/10W	
R411			RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R412			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R501			RK73FB2B243J	CHIP R	24K	J	1/8W	
R502,503			RK73GB2A103J	CHIP R	10K	J	1/10W	
R504			RK73GB2A223J	CHIP R	22K	J	1/10W	
R505			RD14DB2H332J	SMALL-RD	3.3K	J	1/2W	
R507			RK73GB2A223J	CHIP R	22K	J	1/10W	
R508			RK73GB2A104J	CHIP R	100K	J	1/10W	
R510,511			RD14DB2H102J	SMALL-RD	1.0K	J	1/2W	
R512			RK73FB2B223J	CHIP R	22K	J	1/8W	
R514			RD14DB2H102J	SMALL-RD	1.0K	J	1/2W	
R516			RD14DB2H102J	SMALL-RD	1.0K	J	1/2W	
R601			RK73GB2A104J	CHIP R	100K	J	1/10W	
R602			RK73GB2A473J	CHIP R	47K	J	1/10W	
R603			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R604,605			RK73GB2A104J	CHIP R	100K	J	1/10W	
R607			RK73GB2A104J	CHIP R	100K	J	1/10W	
R608			RK73GB2A471J	CHIP R	470	J	1/10W	
R609,610			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R613,614			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R615			RK73GB2A104J	CHIP R	100K	J	1/10W	
R616			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R617			RK73GB2A104J	CHIP R	100K	J	1/10W	K6M2
R618			RK73GB2A104J	CHIP R	100K	J	1/10W	K5
R620			RK73GB2A104J	CHIP R	100K	J	1/10W	K5M2
R620,621			RK73GB2A104J	CHIP R	100K	J	1/10W	K6
R622			RK73GB2A104J	CHIP R	100K	J	1/10W	K5M2
R624,625			RK73GB2A104J	CHIP R	100K	J	1/10W	
R626			RK73GB2A474J	CHIP R	470K	J	1/10W	
R627,628			RK73GB2A471J	CHIP R	470	J	1/10W	
R629			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R630-633			RK73GB2A471J	CHIP R	470	J	1/10W	
R634,635			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R636			RK73GB2A101J	CHIP R	100	J	1/10W	
R637-640			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R641			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R643			RK73GB2A104J	CHIP R	100K	J	1/10W	
R644			RK73GB2A103J	CHIP R	10K	J	1/10W	
R645,646			RK73GB2A104J	CHIP R	100K	J	1/10W	
R647			RK73GB2A103J	CHIP R	10K	J	1/10W	
R648			RK73GB2A473J	CHIP R	47K	J	1/10W	
R649,650			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R652			RK73GB2A104J	CHIP R	100K	J	1/10W	
R654			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R655			RK73GB2A225J	CHIP R	2.2M	J	1/10W	
R702			RK73GB2A101J	CHIP R	100	J	1/10W	
R703			RK73GB2A223J	CHIP R	22K	J	1/10W	
R704			RK73GB2A222J	CHIP R	2.2K	J	1/10W	

(X25-921x-xx)

Ref. No.	Add	New	Parts No.	Description				Destination
R705			RK73GB2A103J	CHIP R	10K	J	1/10W	
R706			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R707,708			RD14DB2H2R2J	SMALL-RD	2.2	J	1/2W	
R709			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R901			RK73GB2A473J	CHIP R	47K	J	1/10W	
R902,903			RK73EB2E102J	CHIP R	1.0K	J	1/4W	
R904			RK73EB2E472J	CHIP R	4.7K	J	1/4W	
R905,906			RK73EB2E102J	CHIP R	1.0K	J	1/4W	
R907			RK73EB2E471J	CHIP R	470	J	1/4W	
R908			RK73EB2E102J	CHIP R	1.0K	J	1/4W	
R910			RK73EB2E101J	CHIP R	100	J	1/4W	
R911,912			RK73EB2E471J	CHIP R	470	J	1/4W	
R913			RK73FB2B241J	CHIP R	240	J	1/8W	
R914			RK73EB2E241J	CHIP R	240	J	1/4W	
S1			S74-0811-05	MICRO SWITCH				
D1			IMSA-6801	SURGE ABSORBER				
D100-103			HZS6C1	ZENER DIODE				
D100-103			MA4062-L	ZENER DIODE				
D201-205			MA4068(N)-M	ZENER DIODE				
D207-214			AM01Z	DIODE				
D401			MTZJ4.3(B)	ZENER DIODE				K6
D402-405			1SS133	DIODE				K6
D402,403			1SS133	DIODE				K5M2
D406			DAP202U	DIODE				
D408			1SS133	DIODE				
D501			1N5393G-M5	DIODE				
D502,503			MA4068(N)-M	ZENER DIODE				
D504,505			AM01Z	DIODE				
D507			AM01Z	DIODE				
D508			1SS133	DIODE				
D601			1SS133	DIODE				
D701			AM01Z	DIODE				
D702			MA4056(N)-M	ZENER DIODE				
D703			MA4091(N)-L	ZENER DIODE				
D704			MA4082(N)-L	ZENER DIODE				
D901			HZS11B2	ZENER DIODE				
D901			MA4110-L	ZENER DIODE				
D902-906			DAN202U	DIODE				
D907-911			DAP202U	DIODE				
D913			MA3062	ZENER DIODE				
IC1		✻	UPD784225GC157	MI-COM IC				
IC2			TDA7407D	ANALOGUE IC				
IC3			HD74HC02FP	MOS-IC				
IC3			TC74HC02AF	MOS-IC				
IC4			TA8273H	ANALOGUE IC				
IC5			NJM2123V-TE2	ANALOGUE IC				K6
IC8			S-80830ANNP	MOS-IC				
Q1			DTC124EUA	DIGITAL TRANSISTOR				
Q1			UN5212	DIGITAL TRANSISTOR				
Q2			2SB1277(Q,R)	TRANSISTOR				
Q2			2SB1434	TRANSISTOR				
Q3			DTC124EUA	DIGITAL TRANSISTOR				
Q3			UN5212	DIGITAL TRANSISTOR				
Q4			2SB1277(Q,R)	TRANSISTOR				

E : Europe **K** : North America **M** : Other Areas

K5 : KDC-319
K6 : KDC-4019
M2 : KDC-5020

⚠ indicates safety critical components.

PARTS LIST

✻New Parts
Parts without **Part No.** are not supplied.
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Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	Add	New	Parts No.	Description	Destination
Q4			2SB1434	TRANSISTOR	
Q201-204			DTC143TUA	DIGITAL TRANSISTOR	
Q205,206			2SD2114K	TRANSISTOR	K6
Q401			DTC124EUA	DIGITAL TRANSISTOR	
Q401			UN5212	DIGITAL TRANSISTOR	
Q402			DTC143TUA	DIGITAL TRANSISTOR	
Q403			DTA124EUA	DIGITAL TRANSISTOR	K5M2
Q403			KRA303	DIGITAL TRANSISTOR	K5M2
Q403,404			DTA124EUA	DIGITAL TRANSISTOR	K6
Q403,404			KRA303	DIGITAL TRANSISTOR	K6
Q501,502			2SC4081	TRANSISTOR	
Q501,502			2SD1819A	TRANSISTOR	
Q503			2SB1277(Q,R)	TRANSISTOR	
Q503			2SB1434	TRANSISTOR	
Q504			DTC114YUA	DIGITAL TRANSISTOR	
Q504			UN5214	DIGITAL TRANSISTOR	
Q505			2SB1277(Q,R)	TRANSISTOR	
Q505			2SB1434	TRANSISTOR	
Q506			2SA1576A	TRANSISTOR	
Q506			2SB1218A	TRANSISTOR	
Q507			DTA124EUA	DIGITAL TRANSISTOR	
Q507			KRA303	DIGITAL TRANSISTOR	
Q508			DTC114YUA	DIGITAL TRANSISTOR	
Q508			UN5214	DIGITAL TRANSISTOR	
Q701			2SA2057	TRANSISTOR	
Q702			2SC4081	TRANSISTOR	
Q702			2SD1819A	TRANSISTOR	
Q703			2SA1576A	TRANSISTOR	
Q703			2SB1218A	TRANSISTOR	
Q704			DTC124EUA	DIGITAL TRANSISTOR	
Q704			UN5212	DIGITAL TRANSISTOR	
Q705			DTA124EUA	DIGITAL TRANSISTOR	
Q705			KRA303	DIGITAL TRANSISTOR	
Q706			2SA2057	TRANSISTOR	
Q707			2SC4081	TRANSISTOR	
Q707			2SD1819A	TRANSISTOR	
Q708			2SD2375	TRANSISTOR	
Q901			DTC124EUA	DIGITAL TRANSISTOR	
Q901			UN5212	DIGITAL TRANSISTOR	
Q902			DTA124EUA	DIGITAL TRANSISTOR	
Q902			KRA303	DIGITAL TRANSISTOR	
Q903			2SD1760	TRANSISTOR	
Q905-907			DTA114YUA	DIGITAL TRANSISTOR	
Q905-907			KRA307	DIGITAL TRANSISTOR	
TH1			PTH9C42BD471Q	POSITIVE RESISTOR	
A1	2B		X86-3240-11	TUNER UNIT	
DAUGHTER UNIT (X89-2510-10)					
CN1		✻	E41-0169-05	SOCKET FOR PIN ASSY	
J1			E58-0865-05	RECTANGULAR RECEPTACLE	
S1			S70-0877-05	TACT SWITCH	

Ref. No.	Add	New	Parts No.	Description	Destination

E : Europe **K** : North America **M** : Other Areas

K5 : KDC-319
K6 : KDC-4019
M2 : KDC-5020

⚠ indicates safety critical components.

KDC-319/4019,5020

SPECIFICATIONS

		KDC-319/4019 (K)	KDC-5020 (M)
FM	Frequency Range (Frequency Step)	87.9MHz - 107.9MHz (200KHz)	87.9MHz - 107.9MHz (200KHz)
	Frequency Range (Frequency Step)	- -	87.5MHz - 108.0MHz (50KHz)
	Channel Space Selection	50KHz / 200KHz	50KHz / 200KHz
	Usable Sensitivity (S/N 30dB)	9.3dBf (0.8μV / 75Ω)	9.3dBf (0.8μV / 75Ω)
	Quieting Sensitivity (S/N 50dB)	15.2dBf (1.6μV / 75Ω)	15.2dBf (1.6μV / 75Ω)
	Frequency Response (±3.0dB)	30Hz - 15KHz	30Hz - 15KHz
	S/N	70dB (MONO)	70dB (MONO)
	Selectivity (DIN)	≧80dB (±400KHz)	≧ 80dB (±400KHz)
	Stereo Separation	40dB (1KHz)	40dB (1KHz)
AM	Frequency Range (Frequency Step)	530KHz - 1700KHz (10KHz)	530KHz - 1700KHz (10KHz)
	Frequency Range (Frequency Step)	- -	531KHz - 1611KHz (9KHz)
	Channel Space Selection	9KHz / 10KHz	9KHz / 10KHz
	Usable Sensitivity (S/N 20dB)	28dBμ (25μV)	28dBμ (25μV)
CD	Laser Diode	GaAlAs(λ=780nm)	GaAlAs(λ=780nm)
	Digital Filter (D/A)	8 Times Over Sampling	8 Times Over Sampling
	D/A Converter	1 Bit	1 Bit
	Spindle Speed	500rpm - 200rpm (CLV)	500rpm - 200rpm (CLV)
	Wow & Flutter	Below Mesurable Limit	Below Mesurable Limit
	Frequency Response	10Hz - 20KHz (±1dB)	10Hz - 20KHz (±1dB)
	Total Harmonic Distortion	0.01% (1KHz)	0.01% (1KHz)
	S/N Ratio	93dB (1KHz)	93dB (1KHz)
	Dinamic Range	93dB	93dB
	Channel Separation	85dB	85dB
Preout Level / Load		1800mV / 10KΩ	1800mV / 10KΩ
Preout Impedance		≦600Ω	≦600Ω
AMPLIFIER	Maximum Power	50W x4	50W x4
	Full Bandwidth Power	22W x4	22W x4
TONE	Bass	100Hz ± 10dB	100Hz ± 10dB
	Middle	1KHz ± 10dB	1KHz ± 10dB
	Treble	10KHz ± 10dB	10KHz ± 10dB
GENERAL	Operating Voltage (11V-16V allowable)	14.4V	14.4V
	Current Consumption	10A	10A
	Installation Size (Width) (Height) (Depth)	182mm 53mm 155mm	182mm 53mm 155mm
	Weight	1.25Kg	1.25Kg

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

KENWOOD CORPORATION

14-6, Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150-8501 Japan

KENWOOD SERVICE CORPORATION
P.O. Box 22745, 2201 East Dominguez Street,
Long Beach, CA90801-5745, U.S.A.

KENWOOD ELECTRONICS CANADA INC.
6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

KENWOOD ELECTRONICS LATIN AMERICA S.A.
P.O. Box 55-2791 Paitilla, Plaza Credicorp Bank Panama,
Piso 9, Oficina 901, Calle 50, Panama, Republic of Panama

KENWOOD ELECTRONICS BRASIL LTDA.
Alameda Ministro Rocha Azevedo No. 456,
Edificio Jaú, 10o Andar, Cerqueira César, Cep 0140-001,
São Paulo-SP-Brasil

KENWOOD ELECTRONICS UK LIMITED
Kenwood House, Dwight Road, Watford,
Herts, WD1 8EB, United Kingdom

KENWOOD ELECTRONICS DEUTSCHLAND GMBH
Rembrücker Str. 15, 63150 Heusenstamm, Germany

KENWOOD ELECTRONICS FRANCE S.A.
13, Boulevard Ney, 75018 Paris, France

KENWOOD ELECTRONICS BELGIUM N.V.
Leuvensesteenweg 248 J, 1800 Vilvoorde, Belgium

KENWOOD ELECTRONICS ITALIA S.p.A.
Via G. Sirtori 7/9, 20129 Milano, Italy

KENWOOD IBÉRICA S.A.
Bolivia, 239-08020 Barcelona, Spain

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.
(A.C.N. 001 499 074)
16 Giffnock Avenue, Centrecourt Estate, North Ryde,
N.S.W. 2113, Australia

KENWOOD ELECTRONICS (HONG KONG) LTD.
Unit 3712-3724, Level 37, Tower 1, Metroplaza,
223 Hing Fong Road, Kwai Fong, N.T., Hong Kong

KENWOOD ELECTRONICS GULF FZE
P.O.Box 61318, Jebel Ali, Dubai, U.A.E.

KENWOOD ELECTRONICS (THAILAND) CO., LTD.
2019 New Pechburi Road, Bangkapi, Huaykwang,
Bangkok, 10320 Thailand

KENWOOD ELECTRONICS SINGAPORE PTE LTD.
1 Genting Lane, #07-00, Kenwood Building, Singapore 349544

KENWOOD ELECTRONICS (MALAYSIA) SDN BHD
#4.01 Level 4, Wisma Academy Lot 4A, Jalan 19/1,
46300 Petaling Jaya, Selangor Darul Ehsan, Malaysia